

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:  
Adrian P. Wise et al.

Filed: HEREWITH

For: MULTISTANDARD VIDEO  
DECODER AND DECOMPRESSION  
SYSTEM FOR PROCESSING  
ENCODED BIT STREAMS  
INCLUDING A RECONFIGURABLE  
PROCESSING STAGE AND  
METHODS RELATING THERETO

§ Serial No. Not Yet Known  
§  
§ Art Unit: 2783 (anticipated)  
§  
§ Examiner: Follansbee, J. (anticipated)  
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§ Attorney Docket No.:  
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PRELIMINARY AMENDMENT

Box PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington DC 20231

Sir:

FILING OF CORRESPONDENCE BY EXPRESS MAIL UNDER 37 C.F.R. § 1.10	
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Prior to issuance of Serial Number 09/307,239 filed on October 7, 1997, and entitled MULTISTANDARD VIDEO DECODER AND DECOMPRESSION SYSTEM FOR PROCESSING ENCODED BIT STREAMS INCLUDING START CODES AND METHODS RELATING THERETO, applicant wishes to file a new divisional application thereon.

In the Specification:

On page 1, line 1, please delete "DATA PIPELINE SYSTEM AND DATA ENCODING METHOD" and in place thereof, please insert new title:

--MULTISTANDARD VIDEO DECODER AND DECOMPRESSION SYSTEM  
FOR PROCESSING ENCODED BIT STREAMS INCLUDING A RECONFIGURABLE  
PROCESSING STAGE AND METHODS RELATING THERETO--.

On page 1, lines 2-8, please delete "This is a continuation-in-part application of U.S. Serial No. (not yet known) filed February 2, 1995, which is a continuation application of Serial No. 08/082,291 filed June 24, 1993. This application claims priority from EPO Application No. 92306038.8 filed June 30, 1992, British Application No. 9405914.4 filed March 24, 1994 and British Application No. (not yet known) filed February 28, 1995." and in place thereof please insert the following heading and paragraph:

--CROSS REFERENCE TO RELATED APPLICATIONS

This application is a divisional of U.S. Serial No. 09/307,239 filed October 7, 1997, which is a continuation of U.S. Serial No. 08/400,397 filed March 7, 1995, which is a Continuation-In-Part of U.S. Serial No. 08/382,958 filed February 2, 1995, now abandoned, which is a continuation of U.S. Serial No. 08/082,291 filed June 24, 1993, now abandoned.--

**In the Claims:**

Please add the following claims:

- 1           1.     A multiple stage processing pipeline for handling bit streams encoded in
- 2     accordance with different standards and arranged as a single serial bit stream, the
- 3     multiple stage processing pipeline comprising:

4 a token generator responsive to the single serial bit stream for generating  
5 tokens; and  
6 at least one reconfigurable processing stage configured to respond to  
7 the generated tokens by processing different portions of the single serial bit stream  
8 corresponding to different ones of the different standards.

1 2. The multiple stage processing pipeline of claim 1, wherein the at least  
2 one reconfigurable processing stage comprises:

3 a token decoder for recognizing ones of the generated tokens as  
4 control tokens pertinent to that at least one reconfigurable processing stage and for  
5 passing unrecognized ones of the generated tokens to another of the stages.

1 3. The multiple stage processing pipeline of claim 2, wherein the at least  
2 one reconfigurable processing stage further comprises:

3 an action identification unit responsive to at least one of the control  
4 tokens for reconfiguring the at least one reconfigurable processing stage to process a  
5 data token identified by the at least one control token according to one of the different  
6 standards..

1 4. The multiple stage processing pipeline of claim 3, wherein the token  
2 generator, the action identification unit and the token decoder are implemented in  
3 hardware.

1 5. The multiple stage processing pipeline of claim 1, wherein the different  
2 standards include MPEG.

1           6.     The multiple stage processing pipeline of claim 1, wherein the different  
2 standards include JPEG.

1           7.     The multiple stage processing pipeline of claim 1, wherein the different  
2 standards include H.261.

1           8.     The multiple stage processing pipeline of claim 1, wherein the at least  
2 one reconfigurable processing stage comprises a spatial decoding stage.

1           9.     The multiple stage processing pipeline of claim 1, wherein the at least  
2 one reconfigurable processing stage comprises a temporal decoding stage.

1           10.    The multiple stage processing pipeline of claim 1, wherein the at least  
2 one reconfigurable processing stage comprises reconfigurable processing stages  
3 including at least one spatial decoding stage and at least one temporal decoding  
4 stage.

1           11.    The multiple stage processing pipeline of claim 9, wherein the temporal  
2 decoding stage comprises a reconfigurable prediction filters block.

1           12.    The multiple stage processing pipeline of claim 11, wherein the  
2 generated token comprises a coding standard token and wherein the reconfigurable  
3 prediction filters block is reconfigured in response to the coding standard token.

1           13.    The multiple stage processing pipeline of claim 12, wherein the  
2 generated token comprises a prediction mode token and wherein the reconfigurable

3 prediction filters block operates in accordance with the mode specified in the  
4 prediction mode token.

1 14. A method for handling bit streams encoded in accordance with different  
2 standards and arranged as a single serial bit stream comprising:  
3 generating tokens in response to the single serial bit stream; and  
4 processing different portions of the single serial bit stream corresponding to  
5 different ones of the standards in response to the generated tokens.

1 15. The method of claim 14, further comprising:  
2 recognizing certain of the generated tokens as control tokens.

1 16. The method of claim 15, further comprising:  
2 reconfiguring the at least one reconfigurable processing stage to process data  
3 tokens identified by the recognized control tokens according to one of the different  
4 standards.

1 17. The method of claim 14, wherein the different standards include JPEG.

1 18. The method of claim 14, wherein the different standards include MPEG.

1 19. The method of claim 14, wherein the different standards include H.261.

1 20. A system comprising:  
2 a detector unit for receiving a data stream of data having portions encoded  
3 according to different standards and for generating tokens based on respective

4 portions of the received data stream; and

5 a processor configured to respond to the generated tokens by  
6 processing the respective portions of the single serial bit stream corresponding to  
7 different standards to produce a decoded output.

1 21. The system of claim 20, wherein the processor comprises a pipeline  
2 processor having at least one reconfigurable processing stage.

1 22. The system of claim 21, further comprising:  
2 a token decoder for recognizing ones of the generated tokens as  
3 control tokens pertinent to that at least one reconfigurable processing stage.

1 23. The system of claim 21, wherein the at least one reconfigurable  
2 processing stage comprises:  
3 an action identification unit responsive to at least one of the control  
4 tokens for reconfiguring the at least one reconfigurable processing stage to process a  
5 data token identified by the at least one control token according to one of the different  
6 standards.

1 24. The system of claim 20, wherein the different standards include MPEG.


1 25. The system of claim 20, wherein the different standards include JPEG.

1 26. The system of claim 20, wherein the different standards include H.261.

**REMARKS**

Should the Examiner believe that contact with Applicant's attorney would be beneficial to the disposition of this application, he is invited to contact Applicant's attorney at the telephone number listed below. The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 94-1175.

Respectfully submitted,



Date: 1/30/01

Richard Stokey  
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